

“Health Education Epidemiology”: An interdisciplinary science that comes into being through the integration of epidemiology and health education

Mohsen Rezaeian

Correspondence:

Professor Mohsen Rezaeian
 PhD, Epidemiologist
 Social Medicine Department
 Occupational Environmental Research Center
 Rafsanjan Medical School
 Rafsanjan University of Medical Sciences
 Rafsanjan-Iran
 Tel: 03915234003
 Fax: 03915225209
 Email: moeygmr2@yahoo.co.uk

Introduction

Epidemiology, as the science of studying the patterns and the causes of health-related phenomena in human societies could provide evidence on how the health of a society can be shaped by diverse factors. Over time epidemiologists have established various study methods e.g. cross-sectional, case-control, cohort, clinical trial, etc. in order to study diverse public health issues.

As a result of applying these designs they have produced a lot of jargon. To name a few, we can refer to risk, rate, point prevalence, period prevalence, sensitivity, specificity, cumulative incidence, incidence density rate, odds ratio, relative risk, confounder, bias, potential effects of exposure, etc.

By using all these methods and related jargon epidemiologists are able to quantify the relation between exposure and outcome, or even to highlight if we are able to reduce the current exposure to a defined level, what would be the potential impact of this reduction either in the exposed group or the whole population.

Nevertheless, these methods and their related terminology are only useful for epidemiologists and other public health specialists who are familiar with them. When it comes to the public and when communicating the results of an epidemiological study to the lay people we should translate this jargon into ordinary language which they would be better able to relate to.

How we could translate methods and jargon into a comprehensible language

For conducting this critical and highly important step, there are other scientists who could assist epidemiologists. These are health educators (or public health officials) whose job is to help people change their attitude and behaviors to restore their full health. Public health officials could also base their initiatives on epidemiological data. These scientists translate the results of new findings, including epidemiological findings, into a language which is comprehended by the lay people, as well as, hopefully, a system of public health based on those findings. Further, epidemiology allows for the assessment of health education and public health initiatives.

Abstract

By integrating epidemiological techniques with health education techniques, we could witness the birth of a new interdisciplinary branch of science that we could call “Health Education Epidemiology”. This new branch of science will greatly assist in the promotion of health of all human societies. This article aims at initiating such integration.

Key words: Epidemiology, Health Education, Integration

Scientists or public health officials disseminate this new knowledge through appropriate media, including mass media, in order to reach the highest coverage as possible. They apply various communication techniques to pass on the knowledge in a way that influences the attitude of people. By influencing the attitudes of the people it is possible that they adopt a new behavior which improves their health.

Sometimes the health-related problem is too crucial or its consequences might be too immense. Besides it might be possible that people become accustomed to it and as a result it would be very difficult to change the situation. Therefore, we need to mobilize the community by the means of social campaigns.

An outstanding example might be the act of self-immolation or self-burning especially in developing countries. Under such circumstances the health educationists could help to organize social campaigns in order to prevent this destructive behavior. They could also help to initiate media advocacy which is fundamental in such public health campaigns.

A reciprocal relation

However, it should be noted that the relation between epidemiologists and health educators is not a one-way relationship. On the contrary, epidemiologists would also be able to help health educators to measure how successful their translations and/or social campaigns would be and have been.

Choosing a suitable study design, selecting an appropriate number of samples, recruiting those samples in a scientific and proper way, designing an appropriate method for measuring the impact of education and/or campaigns, carrying out the appropriate statistical analyses, etc. are to name just a few of skills that epidemiologists could provide for the health educators.

Conclusion

Epidemiological studies can provide evidence on how the health of human communities is shaped by the role of diverse factors. However, the science is full of methods and related jargon which make it very difficult to communicate new results to lay people.

Health education is a discipline that would translate any findings including epidemiological ones into a language which is comprehended by lay people. The diverse methods applied by health educators could help to disseminate new knowledge into appropriate audiences. This makes it possible that eventually a new healthy behavior will emerge.

However, to assess the success of such translations and interventions we still do need epidemiological techniques. The integration between these two disciplines is inevitable and could give birth to a new interdisciplinary branch of science that we could name as "Health Education Epidemiology".

Further Reading

- Gregg M. Communicating epidemiologic findings. In Gregg M, ed. *Field epidemiology*. New York, NY: Oxford University Press: 1996.
- Frankel S, Davison C, Smith GD. Lay epidemiology and the rationality of responses to health education. *Br J Gen Pract*. 1991; 41(351):428-30.
- Markellis VC. Epidemiology: cornerstone for health education. *Health Educ*. 1985-1986; 16(6):14-7.
- Remington PL. Communicating epidemiologic information. In Brownson RC and Petitti DB, ed. *Applied epidemiology*. New York, NY: Oxford University Press: 1998.
- Remington PL, Simoes E, Brownson RC, Siegel PZ. The role of epidemiology in chronic disease prevention and health promotion programs. *J Public Health Manag Pract*. 2003; 9(4):258-65.
- Rezaeian M. No phoenix will arise from the ashes. *Burns*. 2014; 40(2): 357-8.
- Rezaeian M. Social campaigns are needed to stop any forms of self-immolation. *Burns*. 2014; 40(2): 356-7.
- Rezaeian, M. Why it is so important to prevent self-immolation? *Burns*. 2013; 39(6): 1322-3.
- Rezaeian, M. Epidemiology of self-immolation. *Burns*. 2013; 39(1): 184-186.
- Sallis JF, Owen N, Fotheringham MJ. Behavioral epidemiology: a systematic framework to classify phases of research on health promotion and disease prevention. *Ann Behav Med*. 2000; 22(4):294-8.
- Watkins DC, Hartfield JA. Health education for social workers: a primer. *Soc Work Health Care*. 2012; 51(8):680-94.